CONDENSED INSTRUCTIONS

MODELS 467 AND 490 SIMPLIFIED TEST PROCEDURE

490B Users should refer to the instruction manual for Operation Instructions.

CAUTION

Do not apply power to the CRT chassis at any time during the test of any CRT. Completely discharge High Voltage Anode supply of CRT before connecting it to the CRT tester

STEP 1: Set-Up

Set all controls fully counterclockwise and G2 switch (upper left) to NORM. Find proper adapter and heater voltage in SET-UP chart. Select HTR RANGE. Plug in tube and power cord. Rotate FUNCTION switch to SET-UP . Adjust SET HTR to read specified HTR VOLTS. Set G1 voltage to 50 volts unless there is a * (asterisk) in the SET_UP CHART (see General Notes). Check LEAKAGE lamps. Lamps will glow if leakage is excessive. H-K leakage cannot be repaired; use isolation transformer. For G1-K leakage proceed to **RESTORE**-(A.)

STEP 2: SET – CUTOFF

Rotate FUNCTION switch in SET CUTOFF position. Meter may read zero or slightly above or below zero. Adjust each G2 control to ADD ONE DIVISION to reading of corresponding meter. Use Red G2 control for black and white tubes. If max G2 does not raise pointer place G2 switch in HIGH position.

STEP 3: TEST

Rotate FUNCTION switch to TEST position.

1. EMISSION: If all guns read in good region, emission are OK. If any gun reads BAD, proceed to **RESTORE**-(C).
2. TRACKING. Push and hold TRACKING button and adjust TRACKING control to set highest gun at SET TRACKING mark on meter. Tracking is OK if the other two guns read in yellow area. Release button to return to emission test. If tracking is bad, proceed to **RESTORE**-(B).
3. LIFE. Observe emission levels. Push and hold LIFE button until readings stabilize. The less emission drops, the longer the life expectancy. The stabilized readings should remain in the GOOD region to assure customer satisfaction. If any gun indicates BAD during LIFE test, proceed to
   RESTORE-(B).
4. FOCUS. Push FOCUS test button. FOCUS OK lamp will glow if connection is good. Open focus connection cannot be repaired.

RESTORING THE PICTURE TUBE

RESTORE

A-REMOVE SHORTS

1. If G1-K leakage is indicated in **STEP 1** but G1-K SHORT lamp does not light with FUNCTION switch RESTORE position, follow STEP B-CLEAN•BALANCE
2. If G1-K Short lamp lights when function switch is in RESTORE position, press REMOVE SHORTS button and release. Lamp will no longer glow if short is removed. Several operations may be necessary. Wait about 10 seconds between operations. Repeat **STEP 2** and **STEP 3** after shorts are removed.

B – CLEAN • BALANCE

1. Select gun to be cleaned when:
   - G1-K leakage is indicated in **STEP 1** but G1-K SHORTS lamp does not glow in RESTORE position.
   - Emission GOOD but too low to track with other guns.
   - Emission BAD in LIFE test.
2. Set FUNCTION switch to RESTORE
3. Place REJUVENATE/CLEAN•BALANCE switch to CLEAN•BALANCE. Wait 20 seconds.
4. Push RESTORE button below meter for gun selected. Pointer will rise immediately. Hold button until pointer begins to fall. Release button when pointer falls to 0.2. NOTE: If pointer does not continue to fall observe the G1-K SHORTS lamp. If it glows remove shorts before proceeding.
5. Return to TEST. Wait for reading to stabilize. Repeat **STEP 2** and **STEP 3.**
6. Repeat procedure if further improvement is required. If still unsuccessful proceed to STEP C-REJUVENATE.

C- REJUVENATE

1. Select gun to be restored when:
   - Emission is in BAD region.
   - TRACKING CANNOT BE CORRECTED BY CLEAN•BALANCE
2. Set FUNCTION switch to REJUVENATE.
3. Place REJUVENATE/CLEAN•BALANCE switch to REJUVENATE. Wait 20 seconds.
4. Push RESTORE button directly under meter of lowest emission gun. Pointer will immediately rise. Hold button until pointer begins to fall. Release immediately when pointer reaches0.5 (bad area).

   Note: If pointer does not continue to fall, observe the G1-K SHORT lamp. If it glows, remove short before proceeding.
5. Return to TEST. Wait for readings to stabilize. Repeat **STEP 2** and **STEP 3**.

   If emission is now GOOD but further improvement of any gun is required for TRACKING or LIFE TEST use, CLEAN•BALANCE. If emission is still BAD repeat Rejuvenate.